treatment is not lasting. (3) Small doses of benzol seem to stimulate leukopoiesis. Therefore, large doses are indicated in leukemia. Three to 4 grams of benzol daily may be borne for months. In certain cases Koranyi has given 5 grams for short periods of time, but unpleasant effects, such as burning in the stomach, eructation, short attacks of tracheobronchitis, and vertigo, may follow. Gastric disturbances are usually lacking if equal quantities of oil are placed in the gelatine capsules with the benzol. If vertigo is complained of, the dose should be lessened. (4) Koranyi has also used benzol in a patient with polycythemia and splenic tumor. The result was encouraging. At the end of the first week of benzol treatment, the number of erythrocytes rose from 9,000,000 to 10,000,000, but in the next three weeks it fell to 6,700,000. As the patient considered himself cured, he disappeared from observation. It will require more extended observations to determine the value of benzol in the treatment of leukemia and erythremia, but it seems worthy of thorough trial.

The Carbon Dioxide Tension in the Alveolar Air in Acute Febrile Disease.—L. S. Fredericia and O. Olsen (*Deutsch. Arch. f. klin. Med.*, 1912, cvii, 236) have investigated the carbon dioxide tension in the alveolar air in acute fevers. It has been shown that the carbon dioxide tension is lowered in conditions where the oxygen supply is lessened, after excessive bodily exertion, in cyanotic cardiac patients, in diabetics in coma or with untreated acidosis, and in uremia. The studies of Fredericia and Olsen show that in patients with acute febrile diseases the carbon dioxide tension of the alveolar air is also frequently lowered. They consider it possible that this is due to the mild acidosis which is frequently associated with febrile disorders.

A Test of Pancreatic Function.—R. Ehrmann (*Berlin. klin. Woch.*, 1912, xlix, 1363) describes a new, simple test of pancreatic function. It is based on the fact that neutral fat free from fatty acid is split only by pancreatic lipase; the resulting fatty acids are then converted into their green cupric salts. Commercial palmin has proved to be the most suitable neutral fat. Other fats, such as butter and oils, cannot be used. Emulsified fat in the form of milk or cream is also unsuitable, since it may be hydrolyzed by ferments other than pancreatic, although the butyric acid odor noted after removal of these foods from the stomach is due chiefly to the action of pancreatic enzyme. The patient takes the following test breakfast on the fasting stomach: About 30 grams of ordinary rice starch are dissolved in about one-fourth of a liter of water, and warmed somewhat. In this solution about 57 grams of palmin are stirred; the palmin is melted by warming. The mixture is drunk from a glass, and is allowed to remain in the stomach two to two and one-half hours, when it is removed. In testing the gastric contents, two solutions are required: Solution I, petroleum ether, 90, benzol to 100; Solution II, cupric acetate, 3, distilled water to 100. A portion of the fatty gastric contents is shaken vigorously with an equal quantity of solution I. The ether layer, after separation, is poured into a second test-tube, and is then shaken with an equal volume of solution II. The ether which again separates is stained more or less intensely emerald green, depending upon the concentration of fatty acids in the gastric contents. With no hydrolysis of the palmin, the ether remains water clear. If the gastric contents are very acid (Congo paper turned a very dark blue), the reaction may be weak or may fail even with normal pancreatic secretion. In such case, repeat the test breakfast, adding to it a teaspoonful of sodium bicarbonate.

Contributions to the Pathology and Therapy of Very Severe Cases of Diabetes Mellitus.—R. Grafe and Ch. G. L. Wolf (*Deutsch. Arch. f. klin. Med.*, 1912, cvii, 201) have made complete metabolic studies of 3 very severe cases of diabetes mellitus. (The details of their studies cannot be adequately reviewed; the original must be consulted.) They have determined quantitatively the sugar, total nitrogen, acetone, β-oxybutyric acid, creatin, and creatinin, ammonia, "formol," and colloidal nitrogen, and have made observations upon the respiratory exchange of gases in the lungs. In 2 of the patients the acetone excreted was extraordinarily high. The dextrose-nitrogen ratio exceeded 5 over long periods of time, so that formation of sugar from fat must be assumed. They also found the respiratory quotient high in the same 2 patients. This apparent contradiction has also been found by other observers. From comparison of the analyses of the respiratory experiments and of the urine voided at the same time, Grafe and Wolf conclude that the dextrose-nitrogen value and the respiratory quoteint may be harmonized only if one assumes either that, twelve to eighteen hours after a rich carbohydrate meal, the severe diabetic possesses at least 20 grams of glycogen for oxidation or synthesis, or that a still unknown anomaly of metabolism is at play. Since there are no grounds to support the latter view, the first supposition is assumed to be correct. The relation of the creatin excretion furnishes a valuable index of the character of a case of diabetes; the more severe the case, the greater is the quantity of creatin excreted. Therapeutically, Grafe and Wolf found very large quantities of alcohol (equivalent to 100 to 160 grams of absolute alcohol daily), and large doses of alkali (sodium bicarbonate and sodium citrate, 70 to 100 grams daily for weeks) very useful. The beneficial effect of the alcohol was seen not only its action upon the acidosis, but also upon the sugar excretion.

A New Test for Diacetic Acid in the Urine.—B. v. Ondrejovich (*Deutsch. med. Woch.*, 1912, xxxviii, 1413) reports a modification of Lindemann's reaction for diacetic acid. Method: To 5 c.c. of urine add 5 drops of 50 per cent. acetic acid. To this mixture add a 0.2 per cent. methylene blue solution until the whole assumes a marked blue color; usually one drop suffices. Four drops of tincture of iodine are now placed in this mixture, on which the color changes to red. If diacetic acid is present, the blue or green color returns within one minute at the most; otherwise, the red color persists. The reaction depends upon the fact that in acid solution diacetic acid binds the free iodine, forming a colorless compound. Normal urine is supersaturated with free iodine after the addition of 4 drops of the tincture to 5 c.c. of urine; the excess of iodine unites with the methylene blue to form a red compound. An excess of acetic acid is to be avoided.